

**DEPARTMENT OF HEALTH AND HUMAN SERVICES****Centers for Disease Control and Prevention**

[60Day-21-21FC; Docket No. CDC-2021-0048]

**Proposed Data Collection Submitted for Public Comment and Recommendations**

**AGENCY:** Centers for Disease Control and Prevention (CDC),  
Department of Health and Human Services (HHS).

**ACTION:** Notice with comment period.

**SUMMARY:** The Centers for Disease Control and Prevention (CDC), as part of its continuing effort to reduce public burden and maximize the utility of government information, invites the general public and other Federal agencies the opportunity to comment on a proposed and/or continuing information collection, as required by the Paperwork Reduction Act of 1995. This notice invites comment on a proposed information collection project titled, Nurse Fatigue-Mitigation Education: Does it Change Nurse Sleep Behavior? The purpose of this project is to evaluate the online NIOSH Training for Nurses on Shift Work and Long Work Hours for effectiveness at improving nurse sleep and well-being. Study 1 describes the nurses who have taken the training since first published on the NIOSH website in 2015. Study 2 assesses the effectiveness of the training on nurse sleep health and well-being over a six-month post-training period.

**DATES:** CDC must receive written comments on or before [INSERT DATE 60 DAYS AFTER PUBLICATION DATE IN THE FEDERAL REGISTER].

**ADDRESSES:** You may submit comments, identified by Docket No. CDC-2021-0048 by any of the following methods:

- Federal eRulemaking Portal: Regulations.gov. Follow the instructions for submitting comments.
- Mail: Jeffrey M. Zirger, Information Collection Review Office, Centers for Disease Control and Prevention, 1600 Clifton Road, N.E., MS-D74, Atlanta, Georgia 30329.

**Instructions:** All submissions received must include the agency name and Docket Number. CDC will post, without change, all relevant comments to Regulations.gov.

Please note: Submit all comments through the Federal eRulemaking portal (regulations.gov) or by U.S. mail to the address listed above.

**FOR FURTHER INFORMATION CONTACT:** To request more information on the proposed project or to obtain a copy of the information collection plan and instruments, contact Jeffrey M. Zirger, Information Collection Review Office, Centers for Disease Control and Prevention, 1600 Clifton Road, N.E., MS-D74, Atlanta, Georgia 30329; phone: 404-639-7118; E-mail: [omb@cdc.gov](mailto:omb@cdc.gov).

**SUPPLEMENTARY INFORMATION:** Under the Paperwork Reduction Act of 1995 (PRA) (44 U.S.C. 3501-3520), Federal agencies must obtain approval from the Office of Management and Budget (OMB) for each

collection of information they conduct or sponsor. In addition, the PRA also requires Federal agencies to provide a 60-day notice in the Federal Register concerning each proposed collection of information, including each new proposed collection, each proposed extension of existing collection of information, and each reinstatement of previously approved information collection before submitting the collection to the OMB for approval. To comply with this requirement, we are publishing this notice of a proposed data collection as described below.

The OMB is particularly interested in comments that will help:

1. Evaluate whether the proposed collection of information is necessary for the proper performance of the functions of the agency, including whether the information will have practical utility;
2. Evaluate the accuracy of the agency's estimate of the burden of the proposed collection of information, including the validity of the methodology and assumptions used;
3. Enhance the quality, utility, and clarity of the information to be collected;
4. Minimize the burden of the collection of information on those who are to respond, including through the use of appropriate automated, electronic, mechanical, or other technological collection techniques or other forms of

information technology, e.g., permitting electronic submissions of responses; and

5. Assess information collection costs.

## Proposed Project

Nurse Fatigue-Mitigation Education: Does it Change Nurse Sleep Behavior? - New - National Institute for Occupational Safety and Health (NIOSH), Centers for Disease Control and Prevention (CDC).

## Background and Brief Description

Many nurses in the United States work in around-the-clock healthcare facilities, providing necessary care to patients and the public. Providing these services requires nurses to work nonstandard hours, including shift work (e.g. early mornings, over-nights, rotating between days and nights) and long work hours. These work organizational characteristics are primary factors contributing to sleep-related fatigue, and decreased health and well-being for nurses. Studies have found 36% of healthcare workers (including nurses) report sleeping less than the recommended 7-9 hours of sleep/24 hours, with prevalence rates climbing to a little over 50% for those working night shifts. This is concerning, as insufficient sleep not only increases the risk for a patient care error to occur but can also jeopardize the health of nurses.

In 2015, the National Institutes for Occupational Safety and Health (NIOSH) published an online resource to address the risks associated with shift work and other nonstandard work hours, titled "Training for Nurses on Shift Work and Long Work Hours." This no-cost training is designed to educate nurses, nurse managers and other interested healthcare workers on the health and safety risks associated with nonstandard work hours. In addition to sleep and fatigue-related background information, the training provides strategies for improving nurse sleep and reducing fatigue-related risks when working shift work in the healthcare setting.

Over five years have passed since the training was published online. Since then, the nursing workforce has faced a changing healthcare landscape. In response, the two studies in this project have been designed to evaluate whether the NIOSH Training for Nurses is effective at helping nurses improve their sleep and well-being, as well as assess the reach of training dissemination. This evaluation project will help NIOSH assess gaps in training distribution, as well as identify any needs to enhance training content, ensuring the training is providing the intended service.

The goal of Study 1 is to provide a description of the registered nurses (RNs) who have already completed the NIOSH "Training for Nurses on Shift Work and Long Work Hours."

The goal of Study 2 is to evaluate the effectiveness of the training on objective (i.e., actigraphy watches) and subjective

sleep health (composite and separate components [i.e., duration, efficiency, timing, quality, daytime sleepiness]) and well-being from baseline over one, three, and six months post-training. Study 2 explores the relationship between nurse characteristics and behavioral intention as well as the relationship between behavioral intention and sleep health post-training at one, three, and six months.

Information gathered from this evaluation study will allow NIOSH to identify where future dissemination efforts for this training product should be targeted, as well as assess whether the training should be enhanced to meet the greater needs of the current nursing population.

For Study 1, NIOSH will be using pre-existing data already collected by the CDC from individuals who have received continuing professional licensing education credits following training completion. For Study 2, NIOSH will be recruiting 50 RNs to volunteer to participate. Recruitment will take approximately three months through online platforms and with assistance of the NIOSH staff's nursing contacts across the country.

During Study 2, NIOSH will collect data before and after RNs complete the NIOSH Training for Nurses. RNs enrolled in the study will be asked to take online surveys and wear an actigraphy watch during this study. Actigraphy watches are research grade sleep data collection instruments, similar to a wristwatch. Actigraphy watches will be supplied by NIOSH for

participant use during the study. Baseline measures include an online survey with questions about demographics, workplace characteristics (i.e., job tenure, shift length), sleep quality, daytime sleepiness, well-being, complete online daily sleep diaries, and activate actigraphy watches for seven days prior to taking the online training. One month after baseline measures, participants will be asked to take the NIOSH online nurse training. It takes approximately 3.5 hours to complete, and participants will have the opportunity to receive Continuing Education (CE) credits upon completion. After completing the online nurse training, participants will answer four immediate post-training online questions regarding behavioral intention and feedback on the participant training experience. The participant will then be scheduled for the one-month post-training data collection period. At each post-training follow-up period, participants will be asked to follow the same sampling protocol they completed at baseline (seven day actigraphy and sleep/wake diary, online survey on sleep quality, daytime sleepiness, well-being, and behavioral intention towards sleep promoting behavior), as well as three open-ended questions to describe strategies adopted to improve sleep, and facilitators and barriers to adoption. The six-month follow-up will exclude behavioral intention measures.

CDC requests OMB approval for an estimated 341 annual burden hours. There are no costs to respondents other than their time to participate.

Estimated Annualized Burden Hours

Type of Respondents	Form Name	Number of Respondents	Number of Responses per Respondent	Average Burden per Response (in hours)	Total Burden (in hours)
Registered Nurses	Baseline Survey	50	1	23/60	19
	Online Nurses Training	50	1	3.5	175
	Immediate Post-Training Survey	50	1	7/60	6
	Post-Training (1, 3, and 6-months) Survey	50	3	16/60	40
	Consensus Sleep Diary	50	4	21/60	70
	Actigraphy watch training	50	1	10/60	8
	Actigraphy watch fitting	50	4	7/60	23
Total					341

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